UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,698	12/22/2000	Clive C. Hayball	584-1038	9931

7590 07/02/2007	EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/747,698	HAYBALL, CLIVE C.
	Examiner	Art Unit
	Sahera Halim	2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
 Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8 and 13* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communication received on April 20, 2007.

Claim 12 has been cancelled.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Regarding claim 13, the claimed invention is directed to non-statutory subject matter.

This claim is directed to "a computer program", which is intangible and therefore this

claim is non-statutory.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   Claims 1, 4, 8, and 13, are rejected under 35 U.S.C. 102(e) as being anticipated

by US Pat. Pub No. 2005/0193114 to Colby et al. hereinafter (Colby).

2.   As to claim 1, Colby teaches a method of indexing content in an IP-based

network comprising (abstract):

(a) intercepting data traffic flowing in the network (see pg. 1, paragraph 0010 and

0062, a client request for content is intercepted),

(b) extracting content Identity information and associated destination location

information from the data traffic flow (see pg. 2, paragraph 0013, a location of the client

is identified and a location of each of the plurality of servers is identified and servers that

are in the same location of the client are identified),

(c) generating a mapping from a content item identified by the extracted identity

information to at least one destination location identified by the associated, destination

location information (pg. 10, tables 2-3 and paragraph 0111 – 0121; a client may

request content that is available from several candidate server. The IPA uses a

continental proximity lookup table which associates IP address with continents to pick

the closest server).

(c) generating a mapping from the content item identified by the extracted identity

information to at least one destination location identified by the associated, destination

location information (See pg. 9, tables 2-3 and paragraph 0113 – 0118; mapping IP

address with continent identifiers), and

(d) storing the mapping in a content index database which is operable to provide,

an instance mapping containing list of destination locations in response to an instance

request containing a content identity (see page 10, paragraphs 0111 – 0118 and pg. 4,

paragraph 0051,0055-0056, the CSD maintains multiple database containing

information both about the servers that contain the content and the clients requesting

the content).

3.   As to claim 4, Colby teaches a method according to claim 1, wherein the step of

intercepting traffic is carried out by intercepting traffic flowing out of an original content

source (see pg. 1, 0010 - 0018).

4.   As to claims 8, Colby teaches a proxy (content aware flow switch) for an

IP-based network comprising (abstract):

        (a) a data input operable to receive data from the network (Fig. 1b-c and pg. 3,

0045 –0048; content aware switch receives bidirectional data on its ports),

        (b) a data output operable to send data to the network (the content aware switch

outputs data and content on the network ports 170a-c),

        (c) an identity extractor operable to analysis data received at the data input and

to extract content identity information from the data (see pg. 2, paragraph 0013, a

location of the client is identified and a location of each of the plurality of servers is

identified and servers that are in the same location of the client are identified),

        (d) a location extractor operable to analyze data received at the data input and

to extract location information from the data (see pg. 2, paragraph 0013, a location of

the client is identified and a location of each of the plurality of servers is identified and

servers that are in the same location of the client are identified),

(e) a mapping generator operable to generate a mapping from a content,

identified by identity information provided by the identity one destination location

Identified by associated destination location Information provided by the location

extractor (See pg. 9, tables 2-3 and paragraph 0113 – 0118; mapping IP address with

continent identifiers), and

(f) a content index database operable to store a mapping provided by the

mapping generator and which is operable to provide an instance mapping, containing a

list of destination locations in response to an instance request containing a content

identity (see page 10, paragraphs 0111 – 0118 and pg. 4, paragraph 0051,0055-0056,

the CSD maintains multiple database containing information both about the servers that

contain the content and the clients requesting the content).

5.   Claim 13 has similar limitations to claim 1, therefore, it is rejected under the same

rational.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Colby as

applied to claim 1 above, and further in view of U.S Pat. No. 6,205,146 to Rochberger et

al. (hereinafter Rochberger).

2.   As to claim 2, Colby teaches a method according to claim 1, wherein the step of

intercepting traffic is carried out by Intercepting traffic flowing into a cache (see pg. 1,

0010 - 0018). However, Colby fails to teach wherein the method, further comprises

advertising the content Identities for which mappings are stored in the content index by

sending advertising messages to a predetermined location. Nonetheless, Rochberger

teaches advertising the content Identities for which mappings are stored in the content

index by sending advertising messages to a predetermined location (see col. 5 lines 58-

col. 6 lines 6). Having the teachings of Colby and Rochberger, it would have been

obvious for a person having ordinary skill in the art at the time of the invention to

implement Rochberger's advertising messages in order to allow mirroring of content in

distributed data centers, with overflow content delivery capacity and backup in the case

of a partial communications failure (see page 2, paragraph 0015).

3.   As to claim 3, Colby fails to teach wherein the method further comprises

recording the time of traffic flows into the cache which are related to a particular content

and calculating the time period between a first flow of the content item Into the cache

and a subsequent flow of the content item into the cache thereby to assess how long

items are held in the cache before they are expired and deleting the mapping relating to

that content item when that content item is judged to have expired in the cache.

However Rochbeger teaches recording the time of traffic flows into the cache which are related to a particular content and calculating the time period between a first flow of the content item Into the cache and a subsequent flow of the content item into the cache thereby to assess how long items are held in the cache before they are expired and deleting the mapping relating to that content item when that content item is judged to have expired in the cache (see col. 5 lines 58-col. 6 lines 6, the data is deleted when the timer expires). Thus, it would have been obvious for a person having ordinary skill in the art at the time of the invention to include recording the length of time a content has stayed in the cache and deleting the expired content because it makes memory available for critical content.

4.   As to claim 5, Colby fails to teach wherein the method further comprises receiving an advertising message, which advertises a mapping; generated elsewhere on the network and which is related to content items stored in the original content source, and augmenting the content index using information contained in the advertising message. However, Rochbeger teaches receiving an advertising message, which advertises a mapping; generated elsewhere on the network and which Is related to content items stored in the original content source, and augmenting the content index using information contained in the advertising message (see col. 5 lines 15-57). Therefore, it would have been obvious for a person having ordinary skill in the relevant art at the time of the invention to augment content index using the advertising message

in order to get the most updated mapping, which will assist in avoiding trans-continental

links and the bottlenecks they introduce (pg. 2, paragraph 0018).

5.   Claim 6, has similar limitations as to claim 2, therefore it is rejected under the

same rational.

Response to Arguments

Applicant's arguments filed 4/20/2007 have been fully considered but they are

not persuasive.   The applicant argues that the reference fails to teach "the content

request being used to generate a mapping between the content and the cache; the

mapping then being stored within the content server database". The examiner fails to

find these wordings in the claims. In response to applicant's argument that the

references fail to show certain features of applicant's invention, it is noted that the

features upon which applicant relies (i.e., the content request being used to generate a

mapping between the content and the cache; the mapping then being stored within the

content server database) are not recited in the rejected claim(s). Although the claims

are interpreted in light of the specification, limitations from the specification are not read

into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.

1993). The reference teaches mapping IP address with continent identifiers (See pg. 9,

tables 2-3 and paragraph 0113 – 0118), which meets the limitation of "generating a

mapping from the content item identified by the extracted identity information to at least

one destination location identified by the associated, destination location information".

Moreover, the applicant argues that the reference fails to disclose "a method of indexing content" including the step of "intercepting data traffic flowing to a destination location in the network, the data traffic including content to be stored at the destination location". However, the claims are not clear as the above arguments. The claim does not state indexing content. It states storing the mapping in a content index database. Again the applicant relies upon features not recited in claim 1.

Further the applicant argues that the reference fails to teach, "extracting identity information for the content and associated destination location information from the data traffic". The examiner disagrees. The reference teaches a location of the client is identified and a location of each of the plurality of servers is identified and servers that are in the same location of the client are identified (see pg. 2, paragraph 0013).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sahera Halim whose telephone number is (571) 272-4003. The examiner can normally be reached on M-F from 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sahera Halim
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June 25, 2007

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